



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICANT: OBIOL, RAMON SERRA

SERIAL NO.: 09/463,914

ART UNIT: 3724

FILED: February 1, 2000

EXAMINER: Flores Sanchez, O.

TITLE: SYSTEM FOR FIXING ROTARY CUTTING DIES IN MACHINES FOR DIE CUTTING LAMINAR MATERIAL

AMENDMENT "E"

Director of the U.S. Patent  
and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Office Action of June 16, 2005, a response being due by September 16, 2005, please consider the following remarks:

REMARKS

Upon entry of the present amendments, previous Claims 42 - 49 have been canceled and new Claims 50 - 57 substituted therefor. Reconsideration of the rejections, in light of the forgoing amendments and present remarks, is respectfully requested. The present amendments have been entered for the purpose of distinguishing the present invention from the prior art.

In the Office Action, it was indicated that Claims 42 - 44, 46 and 48 were rejected under 35 U.S.C. §103(a) as being obvious over the Quinian patent in view of the Katz patent. Claims 45 and 47 were rejected as being obvious over the Quinian patent in view of the Katz patent. Claim 49 was

rejected as being obvious over the Quinian patent in view of the Katz patent and further in view of the Harrison patent.

As an overview to the present reply, Applicant has revised new independent Claim 50 so as to reflect the limitations of previous independent Claim 42. New independent Claim 50 specifically recites that the working means comprises a plurality of fluid dynamic cylinders “each” acting independently “of each other” in the two 180° halves. Applicant respectfully contends that such language clearly distinguishes the present invention from the prior art.

It should be noted that the present invention was intended to be an improvement over the prior techniques for applying cutting dies to cutting dies support cylinders. This was an improvement over the old technique in which separate screws has to be applied to each of the cutting dies to secure the cutting dies within the threaded connection formed in the support cylinders. Specifically, in original specification under the “Background”, it was stated that:

At present, the rotary cutting dies are fixed on the cutting die support by means of screws that are coupled to the corresponding screw holes made on the surface of cutting die support cylinder.

This fixing system has the main inconvenience that it is excessively slow, as a considerable number of screws have to be placed.

The Quinian patent specifically describes this prior technique for joining the cutting die onto the cutting die support cylinder. Specifically, it was recited in column 5, lines 7 - 20 that:

In Fig.4, the fastening means 21 is shown as being a conventional flat-head fastener having a head portion 28 adapted to bear against die board convex surface 19, and having a threaded shank portion 29 passed through slot 20 and engaged with die drum tapped hole 14. Hence, the fastening means 21 may be selectively loosened to permit longitudinal movement of die board 16 relative to die drum 12, and selectively tightened to securely hold the die board

16 to the die drum 12 at a selected position. Persons skilled in this art will recognize that if it is desired to shift the die board 16 along the die drum 12 a greater distance than that permitted by the longitudinal extent of slots 20, before fastening means 21 may be relocated to another set of die drum holes 14 to permit such desired die board movement.

As such, the prior art Quinian patent simply recites the known prior art. In other words, in order to fasten the cutting die to the cutting die support cylinder, one has to apply the various flat-head fasteners into the separate screw holes in a mechanical manner. This takes an excessive amount of time and is very inconvenient, as was recited in the "Background" portion of the present specification. The Quinian patent, in now way, would suggest any sort of combination with the Katz patent. Additionally, the Quinian patent, in no way, would appear to disclose anything more than the known prior art to that of the present invention.

The Katz patent does provide a fluid dynamic spring-mounted bolt which is movable between a retracted position and an extended position. When the pneumatic valve is operated, the bolts will extend outwardly of the machine spindle. As a result, the tool can be rotated such that the slots are separated from the bolts. The bolts will extend outwardly so that a new tool can be placed thereon in a quick and efficient manner. The cylinder is then actuated to retract the bolt so as to secure the machining disc onto the machining spindle.

Fundamentally, Applicant's attorney respectfully contends that one having ordinary skill in the art of the Quinian patent would not turn to the teachings of the Katz patent except through a hindsight reconstruction of the present invention. The Quinian patent simply utilizes mechanical bolts and/or screws for securing the cutting die to the cutting cylinder. There is absolutely no suggestion in the Quinian patent of the need to adapt the bolts to the various locations of the holes

on the cutting die. Additionally, there is no teaching in the Quinian patent that some of the bolts can remain in the retracted condition when a particular type of cutting die is secured to other bolts. Since the Katz patent is directed to the quick removal of machining discs, it is difficult to see how one would incorporate the structure of the Katz patent in the cutting die support cylinder in the Quinian patent in any way. The Katz patent is simply from a different field of machining arts than that of the Quinian patent. The Katz patent is directed to the machining of wood, metal and stone. On this basis, Applicant respectfully contends that the teachings of the Quinian patent would not cause one with ordinary skill in the art to look for technology associated with machining arts. Applicant respectfully contends that the combination of these references are merely a hindsight analysis and, hence, should not make obvious the teachings of the present invention.

Secondly, relative to the present claims, Applicant notes that there are no teachings in these prior art combination that the fluid dynamic cylinders act independently of each other. Quite clearly, in the Katz patent, each of the bolt-receiving fluid-dynamic cylinders must operate in concert so that each of the bolts extends outwardly simultaneously in a coordinated manner. There would be no way to make the operations independent of each other. Additionally, there is no teaching in either of the Quinian or Katz patents that the bolt remain in the retracted position when the bolt is obstructed from moving from the extended position. Fundamentally, for the device associated with the Katz patent to operate properly, all of the bolts must be extended so as to allow for the attachment or removal of the disc-shaped machining tool. The present invention allows for the retention of the bolt within the hole where the hole associated with the cutting die does not align with a particular bolt. As such, the prior art combination would fail to show the limitation of the “plurality of dynamic cylinders each act independently of each other” in the two 180° halves of the cutting die support cylinder. On

this basis, Applicant respectfully contends that independent Claim 50 is patentably distinguishable from the prior art combination.

Applicant notes that this is the first time that the Quinian patent has been recited in the rejection of the present claims. The Quinian patent is recited herein as a primary reference. There have now been five (5) Official Actions associated with the present application. Applicant is specifically concerned as to why a such a “primary” reference has not been recited until the Fifth Office Action herein. Quite clearly, the failure to recite such a prior art patent is evidence, in itself, of the non-obviousness of the present combination.

Applicant has revised previous dependent Claims 43 - 49 herein in the form of new dependent Claims 51 - 57, respectively.

Applicant respectfully contends that the present claims, as amended, are patentably distinguishable from the prior art combination. If the Examiner should feel that the present claims are still “obvious” in view of the prior art combination, then Applicant respectfully requests that a “final” rejection be issued as to the present application so that an appeal to the Board of Patent Appeals can be instituted at an early date.

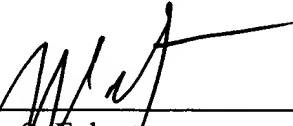
Based upon the foregoing analysis, Applicant contends that independent Claim 50 is now in proper condition for allowance. Additionally, those claims which are dependent upon Claim 50 should also be in condition for allowance. Reconsideration of the rejections and allowance of the

claims at an early date is earnestly solicited. Since no new claims have been added above those originally paid for, no an additional fee is required.

Respectfully submitted,

SEP 14 2005

Date

  
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